



Setting the Agenda

**CDC Research in Chronic
Disease Prevention and
Health Promotion**

September 2000

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Chronic Disease Prevention and Health Promotion

Setting the Agenda: CDC Research in Chronic Disease Prevention and Health Promotion Executive Summary

The research agenda of the National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP) identifies research priorities in the areas of health promotion, reproductive health, and chronic disease prevention and control. Research priorities were selected on the basis of two essential criteria:

Societal burden: The Center places high priority on chronic diseases and conditions and reproductive health outcomes that have the greatest total effect on health, longevity, and quality of life.

Disproportionate burden: The Center places high priority on eliminating disproportionate burden related to sex, age, race, ethnicity, geography (both national and global), sexual orientation, socioeconomic status, disability, and special needs.

Guided by these criteria, NCCDPHP has identified the following **10 priority research areas:**

1. Develop new measures and research designs to strengthen the quality of research in priority areas.
2. Identify the underlying determinants of racial and ethnic health disparities.
3. Develop and evaluate interventions to eliminate health disparities.
4. Examine established and emerging risk factors for chronic disease and investigate their potential for public health interventions.
5. Assess the effectiveness of policy and environmental interventions to promote health.
6. Improve the processes and outcomes of health care systems.
7. Develop effective communication strategies to promote health.
8. Examine methods for helping people manage their own health.
9. Develop and evaluate the effectiveness of population-based health promotion and disease prevention policies and programs at the local, state, national, and international levels.
10. Examine approaches for effectively translating successful community interventions into widespread practice.

The research agenda will help guide Center decisions regarding research directions and the use of resources over the coming years. The priorities derive from a responsibility to develop and implement effective public health policies and programs that demonstrably improve the health of the public. The agenda will be periodically updated to accommodate emerging issues in research and practice.

Setting the Agenda: CDC Research in Chronic Disease Prevention and Health Promotion

Background

As the nation's prevention agency, the Centers for Disease Control and Prevention (CDC) works to promote health and quality of life by preventing and controlling disease, injury, and disability and by promoting physical and mental well-being. To achieve this mission, CDC translates promising research findings into effective interventions that make real, measurable differences for individuals, families, and communities. The National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP) contributes to CDC's mission by

- Promoting long, healthy, and satisfying lives.
- Improving reproductive health.
- Preventing premature death and disability from chronic disease.

NCCDPHP faces enormous challenges in addressing some of the most important public health issues of the foreseeable future: enhancing quality of life and optimal reproductive health and reducing the incidence of heart disease, stroke, cancer, diabetes, arthritis, obesity, oral disease, infant and maternal morbidity and mortality, unintended pregnancy, and emerging chronic diseases. Furthermore, NCCDPHP places the highest possible priority on eliminating the disproportionate burden of these major health issues among low-income and minority populations.

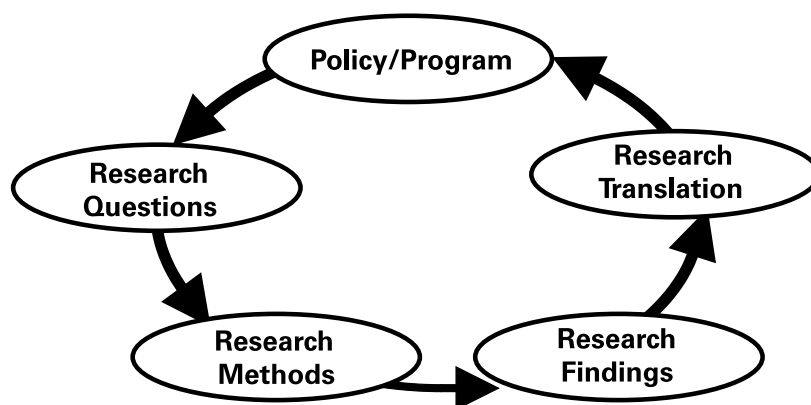
To meet these challenges, NCCDPHP establishes national and international public health programs that are based on a solid foundation of scientific research. This document identifies NCCDPHP research priorities in the areas of health promotion, chronic disease prevention, and reproductive health. It also identifies some of the key crosscutting research issues that will underpin successful public health programs in the future. The research agenda will help guide the Center's decisions about intramural and extramural funding for research over the next 3 to 5 years. The agenda will be periodically updated to accommodate emerging issues in research and practice.

NCCDPHP Applied Research

The Center's primary commitment to research is in the translation of science into practice. NCCDPHP's involvement in translation research stems from its responsibility for developing and implementing effective public health programs. This responsibility leads to an emphasis on applied research with practical implications for improved health programs. The needs of public health programs define the Center's highest priorities for research.

Figure 1 depicts the interdependence and cyclical nature of research and practice. The research process is a continuous improvement cycle designed to enhance public health by translating scientific findings into current practice. Program needs help define research questions, and research findings are translated back into improved programs and policies.

Figure 1. Improving Public Health Through Science

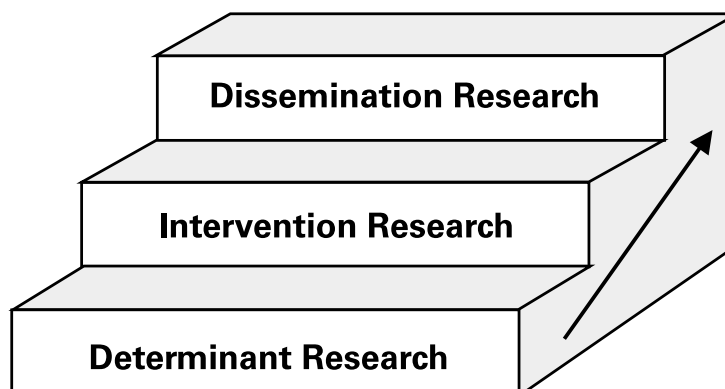


Types of Applied Research

NCCDPHP conducts three primary types of applied research: research on cause (determinant research), research on effect (intervention research), and research on application and benefit (dissemination research) (Figure 2).

Determinant research examines how various risk and protective factors affect health. Knowledge about the determinants of healthy people and healthy communities is essential for developing maximally effective interventions. A better understanding of such determinants as assets, resiliency, and social capital is needed to broaden the approach to public health from a disease-reduction focus. Research on determinants that influence multiple health outcomes is especially important.

Figure 2. Progressing from Determinant to Dissemination Research



Intervention research identifies or develops promising programs and examines their effectiveness in reducing disease and promoting health. Intervention research includes program evaluation, cost-effectiveness research, and research synthesis to summarize prior scientific findings.

Dissemination research examines strategies for promoting widespread adoption and maintenance of effective programs. Research in this area includes examining the effectiveness of a promising program in different settings and with different populations, as well as studying methods for translating promising findings from a controlled trial into widespread practice.

Determinant, intervention, and dissemination research comprise the majority of the NCCDPHP research agenda. The agenda also includes improving research methods through advances in measurement, research design, and analytic approaches.

Research Criteria

NCCDPHP uses two criteria to prioritize its research agenda and ensure that its research has maximum influence in improving health:

Societal burden: The Center places high priority on chronic diseases and conditions and reproductive health outcomes that have the greatest total effect on health, longevity, and quality of life.

Disproportionate burden: The Center places high priority on eliminating disproportionate burden related to sex, age, race, ethnicity, geography (both national and global), sexual orientation, socioeconomic status, disability, and special needs.

In addition, all research in which NCCDPHP participates must meet the highest, most stringent ethical standards.

Research Themes

Although significant progress has been made in preventing chronic disease and improving reproductive health, NCCDPHP seeks new prevention approaches that offer the potential for increased effectiveness. Increased effectiveness can be achieved by emphasizing research that is participatory, includes social and ecological determinants of health, and cuts across risk and disease categories.

Participatory research: Practical and effective solutions to public health problems must involve affected communities. Active community involvement in all phases of research helps to ensure consistency with community norms, cultural competency, and responsiveness to community needs. Community involvement in research builds on the strengths of existing systems, facilities, and communication channels. Participatory research increases the local relevance of the research and the likelihood that it will be applied, thereby narrowing the gap between research and practice. Involved communities should directly benefit from the research, such as by retaining valuable programs and services beyond the study period. Participatory research requires the exploration of different models and a substantial commitment in time and resources to achieve community involvement and show benefits.

Multilevel social and ecological research: To be most effective, research must account for social and ecological factors and be implemented at multiple levels. Social and ecological approaches to research address the legal, social, policy, economic, and sociocultural factors that affect health. Included in this research are access to and quality of education, health care, housing, community services, neighborhood living conditions, and employment/income. Partnerships across systems, agencies, and organizations are needed to adequately address these broad contextual factors. Research is also needed to examine the benefits of applying interventions simultaneously at multiple levels of

influence (e.g., organizations, communities, broad social systems) and across multiple sectors of influence (e.g., health, education, welfare). Social and ecological approaches may have greater reach, be more powerful, be longer lasting, and influence a broader range of conditions than approaches that focus more strictly on an individual's responsibility for behavior change.

Crosscutting research: Categorical concerns in chronic disease can be artificial, particularly when focused on primary prevention. Populations at risk for one chronic disease are often at risk for multiple chronic diseases, and the risk factors underlying these diseases are often similar. Accessing at-risk populations repeatedly for separate categorical programs is inefficient and costly. Public health research is increasingly looking for and evaluating the effectiveness of methods for integrating programs and services to meet the interconnected needs of populations. Interventions built to address multiple needs will increase efficiency in a public health system in which the challenges continue to outpace the available resources.

Research Priorities

Using the criteria and themes described above, NCCDPHP has selected the following research priorities. For each priority, we provide several examples of the types of study questions that should be addressed.

1. Develop new measures and research designs to strengthen the quality of research in priority areas.
 - Improve measures for assessing physical activity and nutritional status and related perceptions, beliefs, and behavior.
 - Improve measures for assessing reproductive intentions and contraceptive use.
 - Determine the reliability and validity of community-level indicators of health.
 - Develop new research designs and analytic methods to examine the effects of multilevel social and ecological interventions on health.
 - Develop and evaluate different models of participatory research that are culturally competent and sustainable.

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2. Identify the underlying determinants of racial and ethnic health disparities.
 - Examine the effects of poverty, relative inequity, community infrastructure, racism, illiteracy, and social injustice on health.
 - Assess the determinants of the occurrence, progression, and impact of chronic disease among at-risk populations.
 3. Develop and evaluate interventions to eliminate health disparities.
 - Develop and evaluate interventions to eliminate disparities in reproductive health, including preterm delivery, infant mortality, and maternal mortality.
 - Develop and evaluate interventions to eliminate disparities in chronic disease and underlying risk factors.
 - Assess the effectiveness and cost-effectiveness of community-based interventions in eliminating health disparities in at-risk communities.
 4. Examine established and emerging risk factors for chronic disease and investigate their potential for public health interventions.
 - Examine through a longitudinal study the etiologic factors that influence health, education, and social outcomes among young people.
 - Identify personal, partner, and cultural determinants of reproductive intentions, contraceptive use, and outcomes of unintended pregnancy.
 - Improve the ability to identify populations at high risk for chronic disease.
 - Examine genetic influences on health and their implications for public health interventions.
 - Examine the interrelationship of oral health and systemic health.
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5. Assess the effectiveness of policy and environmental interventions to promote health.
 - Assess the effectiveness of policy and environmental interventions to prevent tobacco use.
 - Examine the effectiveness of changes in schools and work sites to promote sound dietary and physical activity behaviors.
 6. Improve the processes and outcomes of health care systems.
 - Assess the patterns, quality, and determinants of treatment for chronic disease in communities.
 - Examine means for reaching people who rarely or never access health care or adhere to screening guidelines.
 - Identify barriers that limit access to reproductive health services and contraceptive technology and develop strategies for eliminating these barriers.
 7. Develop effective communication strategies to promote health.
 - Develop and evaluate a public health media campaign to deliver important health messages to children.
 - Examine the effectiveness of social marketing concepts and strategies in promoting healthy lifestyles.
 8. Examine methods for helping people manage their own health.
 - Identify effective self-management approaches to help people with chronic disease improve or maintain function and quality of life.
 - Develop and evaluate self-management interventions to improve health outcomes among people aged 65 years or older.
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9. Develop and evaluate population-based health promotion and disease prevention programs at the local, state, national, and international levels.
 - Develop and evaluate community-focused behavioral, sociocultural, and ecological approaches for preventing and controlling chronic disease.
 - Develop and evaluate community-based approaches for preventing unintended pregnancy and sexually transmitted disease.
 - Develop and evaluate school-based approaches for preventing chronic disease and improving health.
 - Develop and evaluate effective interventions that target inactivity, poor nutrition, and tobacco control in a variety of settings.
 10. Examine approaches for effectively translating successful community interventions into widespread practice.
 - Explore factors that improve the implementation of intervention strategies known to be effective in preventing disease and improving health.
 - Develop models for institutionalizing effective programs and policies.

Conclusion

This document sets forth a blueprint for CDC's intramural and extramural research priorities in the areas of health promotion, reproductive health, and chronic disease prevention and control. Research at CDC is driven by the immediate and pressing problems of protecting the health of populations at risk. NCCDPHP will use the agenda to identify resource needs and to direct those resources to improve the health of populations at disproportionate risk for health problems.

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